

No.

200300050



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

University of Georgia Research Foundation, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR REPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE USE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

PEANUT

'Georgia-02C'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this twenty-fourth day of March, in the year two thousand and five.

Attest:


Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

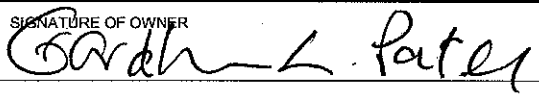

Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

1. NAME OF OWNER University of Georgia Research Foundation, Inc.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME GA 982508		3. VARIETY NAME Georgia-02C	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) Boyd Graduate Studies Research Center Athens, GA 30602-7411		5. TELEPHONE (include area code) (706) 542-5944		FOR OFFICIAL USE ONLY PVPO NUMBER 200300050 FILING DATE December 3, 2002	
		6. FAX (include area code) (706) 542-3837			
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) Corporation		8. IF INCORPORATED, GIVE STATE OF INCORPORATION Georgia		9. DATE OF INCORPORATION Nov. 17, 1978	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) Dr. John Ingle University of Georgia Research Foundation, Inc. Boyd Graduate Studies Research Center Athens, GA 30602-7411				FILING AND EXAMINATION FEES: \$ 2705 DATE 12/3/02 CERTIFICATION FEE: \$ 432.00 DATE 2/28/05	
11. TELEPHONE (Include area code) (706) 542-5944		12. FAX (Include area code) (706) 542-3837		13. E-MAIL kmb@ovpr.uga.edu	
14. CROP KIND (Common Name) Peanut		15. GENUS AND SPECIES NAME OF CROP Arachis hypogaea L. subsp. hypogaea var. hypogaea			
16. FAMILY NAME (Botanical) Leguminosae (Fabaceae)		17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,705), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)			19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act. <input checked="" type="checkbox"/> YES (If "yes", answer items 20 and 21 below) <input type="checkbox"/> NO (If "no", go to item 22)		
			20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? IF YES, WHICH CLASSES? <input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED		
			21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? IF YES, SPECIFY THE <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED NUMBER 1,2,3, etc. (If additional explanation is necessary, please use the space indicated on the reverse.)		
22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)			23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)		
24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF OWNER 			SIGNATURE OF OWNER		
NAME (Please print or type) Gordhan L. Patel			NAME (Please print or type)		
CAPACITY OR TITLE Executive Vice President		DATE 11/25/2002		CAPACITY OR TITLE	
				DATE	

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to **reproduce** the variety, or for tuber reproduced varieties verification that a viable (*in the sense that it will reproduce an entire plant*) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$2,705 (\$320 filing fee and \$2,385 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. **Retain one copy for your files.** All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$320 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office

Telephone: (301) 504-5518

FAX: (301) 504-5291

Homepage: <http://www.ams.usda.gov/science/pvpo/pvp.htm>

ITEM

- 18a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
 - (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
19. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
23. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

~~**22. CONTINUED FROM FRONT** (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)~~

23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

U.S. Patents assigned to the University of Florida Research Foundation, Inc.:
5,922,390 (issued 7/13/1999); 6,063,984 (issued 5/16/2000); 6,121,472 (issued 9/19/2000)

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center-East, Beltsville, MD 20705. Telephone: (301) 504-8089. <http://www.ams.usda.gov/lsg/seed.htm>

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 3.0 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

S&T-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (04-01) which is obsolete.

EXHIBIT - A

Origin and Breeding History of the Variety:

'Georgia-02C' is a new high-oleic runner-type peanut (*Arachis hypogaea* L. subsp. *hypogaea* var. *hypogaea*) cultivar that was released to the University of Georgia Research Foundation by the Georgia Agricultural Experiment Stations in 2002. It was developed at the University of Georgia, Coastal Plain Experiment Station, Tifton, Georgia.

Georgia-02C originated from a cross made in 1993 between Southern Runner and a Georgia high-oleic selection. Southern Runner is a disease resistant cultivar that was developed from a cross between PI 203396 and Florunner. The Georgia high-oleic selection was derived by γ -irradiation induced mutation from seed of Georgia Runner. The pedigree selection method was practiced within the F_2 , F_3 , and F_4 segregating populations, and performance testing was begun in the $F_{4:6}$ generation with the advanced pure breeding line, GA 982508. For the past four years (1999-2002), field observations and data indicate that the varietal characteristics of Georgia-02C are very uniform and stable, and no off-types or variants have yet been found.

PEDIGREE SELECTION METHOD

1993	Southern Runner X GA-High Oleic Selection
1994	F_1 Increase
1995-97	F_2 - F_4 Individual Resistant Plant Selections*
1998	F_5 Progeny Row Increase
1999-2001	F_6 - F_8 Multilocation Yield Trials
2002	F_9 Released as 'Georgia-02C'

* Individual plant selections were based upon high oleic and low linoleic fatty acid ratios, pod shape, seed size, testa color, growth habit, maturity, yield and grade characteristics. Because tomato spotted wilt virus (TSWV) was naturally occurring and *Cylindrocladium* black rot (CBR) was prevalent in the soilborne disease nurseries during these early segregating generations, individual plants were also selected for TSWV resistance as well as CBR resistance.

EXHIBIT - B

Novelty Statement:

'Georgia-02C is unique from other high-oleic runner-type peanut cultivars in having a combination of higher percentage of jumbo runner seed size, higher percentage of total sound mature kernels (TSMK), tan testa (seed coat color), spreading runner growth habit, medium late maturity, and resistance to both TSWV and CBR (Exhibit-D). Each of these plant characteristics are highly heritable and very stable across environments. In 21 tests conducted over multilocations in the southeastern U. S., Georgia-02C was found to have significantly less TSWV disease incidence and produced significantly higher yields, grade, and dollar values than the AgraTech 201 cultivar.

TWO-YEAR (21 TESTS) AVERAGE TSWV INCIDENCE, YIELD, GRADE, SEED SIZE, AND DOLLAR VALUE OF GEORGIA-02C VS. AGRATECH 201 OVER MULTILOCATIONS IN THE SOUTHEAST U.S., 2000-01.

Peanut	TSWV	Yield	TSMK	Seed	Value
Variety	(%)	(lb/a)	(%)	(no./lb)	(\$/a)
Georgia-02C	16 b	4680 a	76 a	726 a	1525 a
AT 201	38 a	3716 b	74 b	717 a	1178 b

Means within the same column followed by the same letter do not differ significantly at $P \leq 0.05$.

Georgia-02C is most similar to AgraTech 201. However, Georgia-02C is distinctively different from AT 201 in having a tan testa color vs pink testa for AT 201. Georgia-02C is similar to AT 201 in having a high-oleic fatty acid content for longer shelf-life and better nutrition.

TWO-YEAR (5-TESTS) AVERAGE PERCENTAGE OF OLEIC AND LINOLEIC FATTY ACID COMPARISON BETWEEN GEORGIA-02C VS. AGRATECH 201 IN GEORGIA, 2000-2001.

Peanut	%Fatty Acid		O/L
Variety	Oleic	Linoleic	Ratio
Georgia-02C	86.58 a	2.67 b	32.43 a
AT 201	86.30 a	3.58 a	24.11 b

Means within the same column followed by the same letter do not differ significantly at $P \leq 0.05$.

Georgia-02C also has significantly higher percentage of jumbo runner seed and sound mature kernels (SMK) as compared to AgraTech 201. Each of these traits are likewise under genetic control and can be used as long-term distinguishing markers for Georgia-02C.

TWO-YEAR (11 TESTS) AVERAGE SHELLING OUTTURN OF GEORGIA-02C VS. AGRATECH 201, 2000-2001.

Peanut Variety	Jumbo (%)	Med. (%)	No. 1 (%)	SMK (%)	SS (%)	OK (%)	DK (%)	Meat (%)	Hull (%)
Georgia-02C	44 a	25 b	3 b	72 a	5 b	2 b	1 b	80 a	20 b
AT 201	26 b	32 a	7 a	65 b	9 a	3 a	3 a	80 a	20 b

Means within the same column followed by the same letter do not differ significantly at $P \leq 0.05$.

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According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-6964 (voice and TDD). USDA is an equal opportunity provider and employer.

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AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

Exhibit C

OBJECTIVE DESCRIPTION OF VARIETY
Peanut (*Arachis hypogaea*)

NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME
Univ. of GA Res. Foundation	GA 982508	Georgia-02C
ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country)		FOR OFFICIAL USE ONLY
Boyd Graduate Studies Research Center Athens, GA 30602-7411		PVPO NUMBER

PLEASE READ ALL INSTRUCTIONS CAREFULLY:

Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box

e.g., or when a number is either 99 or less or 9 or less.

1. BOTANICAL TYPE:

<input type="text" value="1"/>	Flowering on the Main Stem:	1 = Absent	2 = Present
<input type="text" value="1"/>	Branching Pattern:	1 = Alternate – Pairs of vegetative and reproductive branches (Virginia) 2 = Sequential – Continuous reproductive branches (Valencia-Spanish) 3 = Other (Specify) _____	

2. PLANT:

<input type="text" value="1"/>	Habit:	1 = Prostrate (Florunner)	2 = Decumbent (NC-5)	<input type="text" value="3"/>	Branching:	1 = Sparse (Valencia)	2 = Moderate (Starr)
		2 = Semi-Erect (Florispans)	4 = Erect (Starr)			3 = Profuse (Florunner)	

3. MATURITY:

<input type="text" value="2"/>	Region:	1 = Virginia, North Carolina	2 = Southeast United States	3 = Southwest United States	4 = Other
<input type="text" value="1"/> <input type="text" value="5"/> <input type="text" value="0"/>	Number of Days to Maturity	Approximately in South Georgia			
<input type="text" value="1"/> <input type="text" value="0"/>	Number of Days Earlier Than	<input type="text" value="8"/>	1 = Starr 2 = Florunner 3 = Florigiant 4 = Virginia 61R 5 = NC-2 6 = NC-5 7 = Southeastern Runner 56-15 8 = Other (Specify) <u>Agratech 201</u>		
	Number of Days Later Than				

4. LEAVES:

<input type="text" value="2"/>	Color at 60 Days (Nickerson Color Designation)	1=Light Green (10gy 6/9)
<input type="text" value="6"/> <input type="text" value="8"/>	mm Leaflet Length (Basal Leaflet of the Youngest Fully Opened Leaf)	2= Medium Green (2.5G 5/9)
<input type="text" value="2"/> <input type="text" value="5"/> <input type="text" value="0"/>	Leaflet Length/Width Ratio	3=Dark green (5G 4/7)
		4= Other (Specify)

5. POD (Average for 20 pods at maturity):

<input type="text" value="2"/> <input type="text" value="7"/>	mm Length	<input type="text" value="1"/> <input type="text" value="5"/>	mm Diameter			
<input type="text" value="5"/> <input type="text" value="2"/> <input type="text" value="4"/> <input type="text" value="6"/>	KG./HA. Pod Yield					
<input type="text" value="2"/> <input type="text" value="0"/>	% Less Than	<input type="text" value="8"/>	1 = Starr 4 = Virginia 61R 6 = NC-5 8 = Other (Specify) <u>AgraTech 201</u>			
	% More Than		2 = Florunner 3 = Florigiant 5 = NC-2 7 = Southeastern Runner 56-15			
<input type="text" value="1"/> <input type="text" value="5"/>	% Fancy Size: (% riding 13.46 mm., 34/64 Inch, Spacing Set on Presizer Roller)					
<input type="text" value="2"/>	Number of Seeds per Pod:	1 = 1	2 = 2	3 = 3	4 = 3-4	5 = 2-3-4
<input type="text" value="1"/>	Constriction:	1 = Shallow or None (Virginia 56R, Argentine)		2 = Medium (Virginia 61R)		3 = Deep (Starr)
<input type="text" value="1"/>	Surface:	1 = Glabrous (Florunner)		2 = Pubescent (Florispan)		
<input type="text" value="1"/>	Beak:	1 = Absent		2 = Inconspicuous		3 = Pronounced

6. SEED (Mature, cured but not aged):

<input type="text" value="0"/> <input type="text" value="3"/>	Coat Color:	1 = White (Pearl)	2 = Cream	3 = Tan (Starr)	4 = Brown	5 = Pink (Florigiant)
		6 = Red	7 = Purple	8 = Dark Purple	9 = Variegated	
		10 = Other (Specify) _____				
<input type="text" value="1"/>	Coat Surface:	1 = Smooth	2 = Undented	<input type="text" value="1"/>	1 = Uniform Color	2 = Blemished
<input type="text" value="6"/>	Shape:	1 = Spheriodal (Starr)	2 = Short Broad (Florunner)	3 = Elongated-Slender (Dixie Runner)	6 = Other (Specify) <u>Rounder</u>	
		4 = Cylindrical-tapered Ends	5 = Cylindrical Blunt Ends (NC-2)			
<input type="text" value="1"/> <input type="text" value="5"/>	mm Length	<input type="text" value="1"/> <input type="text" value="1"/>	mm Width	<input type="text" value="6"/> <input type="text" value="3"/>	Grams per 1000 Seeds	<input type="text" value="6"/> % Moisture

7. DISEASE RESISTANCE: (0 = Not Tested, 1 = Susceptible, 2 = Moderately Susceptible, 3 = Moderately Resistant, 4 = Resistant)

<input type="text" value="3"/>	Southern Stem Rot	<input type="text" value="0"/>	Rust	<input type="text" value="2"/>	Early Leaf Spot	<input type="text" value="4"/>	Virus X TSWV
<input type="text" value="2"/>	Southern Leaf Spot	<input type="text" value="0"/>	Mosaic	<input type="text" value="0"/>	Pod Rot Complex	<input type="text" value="4"/>	Other (Specify) <u>CBR</u>

8. INSECT RESISTANCE: (0 = Not Tested, 1 = Susceptible, 2 = Moderately Susceptible, 3 = Moderately Resistant, 4 = Resistant)

<input type="text" value="1"/>	Thrips	<input type="text" value="0"/>	Burrowing Bug	<input type="text" value="0"/>	Leaf Hopper	<input type="text" value="0"/>	Nematode (Specify species) _____
<input type="text" value="0"/>	Southern Corn Rootworm	<input type="text" value="0"/>	Lesser Cornstalk Borer	<input type="text" value="0"/>	Aphid	<input type="text" value="0"/>	Other (Specify) _____

9. COMPARISON OF SUBMITTED VARIETY WITH ONE OR MORE SIMILAR VARIETIES:

VARIETY	OIL* (%)	PROTEIN* (%)	OLEIC* LINOLEIC ACID RATIO	IODINE* NUMBER	SHELLING (%)	SMK** (%)	ELK+ (%)	MAIN STEM HEIGHT (CM)
Submitted	46	27	32.4	75	80	76	44	50
Similar	46	26	24.1	79	80	74	26	48
Name of Similar Variety	AT201	AT201	AT201	AT201	AT201	AT201	AT201	AT201

* From Sound Mature Kernels

** Sound Mature Kernels

+ Extra Large Kernels

10. INDICATE A VARIETY WHICH MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	VARIETY	CHARACTER	VARIETY
Pod Color	AT 201	Seedling Vigor	AT 201
Seed Dormancy	AT 201	Hull Thickness	AT 201
Seed Size	AT 201	Leaf Color	AT 201

11. COMMENTS: (Additional description or clarification – such as: relative disease reactions may be compared with standard varieties)

EXHIBIT-D

Additional Description of the Variety:

Cylindrocladium black rot (CBR) and Tomato spotted wilt virus (TSWV) have become major peanut disease problems in Georgia during the past several years. By the end of each growing season, CBR and TSWV have been quite severe among the more susceptible cultivars. During the past two years (2000-01), several resistance and susceptible peanut cultivars were compared for TSWV and CBR disease incidence. NC 12C and NC 8C are resistant virginia-type cultivars to CBR but susceptible to TSWV; whereas, C-99R is a resistant runner-type cultivar to TSWV but susceptible to CBR. Georgia-02C may be the first high-oleic runner-type peanut cultivar to have a high level of resistance to both TSWV and CBR.

TWO-YEAR AVERAGE CBR AND TSWV DISEASE INCIDENCE AND POD YIELD OF GEORGIA-02C VS. OTHER RESISTANT AND SUSCEPTIBLE PEANUT CULTIVARS, 2000-01.

Peanut Variety	% Disease Incidence		After	Pod
	Mid-Season	Late-Season	Digging	Yield
	TSWV	TSWV+CBR	CBR	(lb/a)
Georgia-02C	9 d	43 c	20 c	2172 a
NC 12C	24 b	63 ab	21 c	2172 a
C-99R	17 c	58 bc	50 a	1416 b
NC 8C	31 a	81 a	35 b	1152 b

Means within the same column followed by the same letter do not differ significantly at $P \leq 0.05$.

Table 1

Average of mid-season TSWV disease incidence among 30 peanut genotypes at the Southeast Georgia Branch Station near Midville, GA, 1999–2001

Peanut genotype	Mid-season disease incidence ^a		
	1999 (%)	2000 (%)	2001 (%)
NC 8C	—	42.1 a	20.8 a
Perry	—	38.3 a	21.2 a
NC 3033	14.2 ab	32.1 b	19.6 ab
NC 12C	17.5 a	31.2 b	16.2 bc
Florida MDR 98	9.6 cd	24.6 cd	13.3 cd
C-99R	8.8 c–e	26.2 c	8.3 e–i
GA 962569	8.8 c–e	22.1 c–e	10.4 d–f
GA 981510	—	21.2 de	10.8 de
Georgia Hi-O/L	6.7 c–f	19.2 e–g	10.8 de
Southern Runner	9.6 cd	19.6 ef	9.2 e–h
Georgia Green	5.4 ef	19.6 ef	7.1 f–k
GA 981516	—	17.9 e–h	7.9 e–j
Carver	—	15.4 f–i	9.6 e–g
GA 962543	2.9 f	15.4 f–i	8.3 e–i
GA 942509	7.5 c–e	14.2 hi	7.9 e–j
GA 981509	—	15.0 f–i	7.1 f–k
GA 981521	—	13.8 hi	7.9 e–j
GA 942510	7.5 c–e	15.0 f–i	6.2 g–k
GA 962533	5.0 ef	15.8 f–i	5.0 i–k
GA 981517	—	14.6 g–i	6.2 g–k
GA 981511	—	14.2 hi	6.2 g–k
GA 981520	—	14.2 hi	5.8 h–k
Georgia Browne	—	14.2 hi	5.4 i–k
GA 962540	6.2 d–f	12.9 i	6.2 g–k
GA 942516	6.7 c–f	13.3 hi	4.6 jk
GA 982508	—	13.8 hi	4.2 k
Georgia-01R	5.8 d–f	11.7 i	3.8 k
GA 962539	10.4 bc	—	—
GA 971503	8.8 c–e	—	—
GA 971504	6.7 c–f	—	—

^a Means within the same column followed by the same letter do not differ significantly at k -ratio = 100 (ca. $P \leq 0.05$).

Table 2

Average of mid to late season disease incidence (predominantly CBR and TSWV) among 30 peanut genotypes at the Southeast Georgia Branch Station near Midville, GA, 1999–2001

Peanut genotype	Mid-late season disease incidence ^a			3-yr mean (99–01)
	1999 (%)	2000 (%)	2001 (%)	
NC 8C	—	69.6 a	47.9 a	—
Perry	—	60.4 ab	40.4 a-c	—
NC 3033	58.3 a	60.0 ab	40.4 a-c	52.9 a
GA 981509	—	66.2 ab	30.0 a-e	—
GA 981510	—	58.8 b	35.4 a-e	—
Florida MDR 98	40.0 bc	38.8 c-g	47.5 a	42.1 b
NC 12C	40.8 bc	46.2 c	36.2 a-e	41.1 b
C-99R	37.1 b-d	39.6 c-f	35.8 a-e	37.5 bc
GA 942509	40.0 bc	32.1 f-j	41.7 ab	37.9 bc
Georgia Hi-O/L	34.2 cd	32.1 f-j	39.6 a-d	35.3 b-d
GA 981516	—	44.2 cd	25.8 b-e	—
GA 962533	35.0 b-d	35.4 d-h	31.2 a-e	33.9 b-d
GA 962569	47.7 ab	31.2 f-j	33.8 a-e	37.2 b-d
Georgia Green	38.3 b-d	38.3 c-g	24.2 b-e	33.6 b-d
GA 981517	—	35.0 d-h	27.5 a-e	—
Georgia Browne	—	42.5 c-e	19.2 de	—
GA 942516	30.8 c-e	23.3 ij	32.5 a-c	28.9 d-f
GA 942510	37.1 b-d	29.2 g-j	27.5 a-e	31.2 c-f
Carver	—	27.1 h-j	28.3 a-e	—
Southern Runner	41.7 bc	31.2 f-j	22.1 b-e	31.7 c-e
GA 981520	—	32.5 e-i	20.4 c-e	—
GA 962540	19.6 e	27.9 h-j	21.7 b-e	23.1 f
GA 981511	—	30.1 f-j	17.1 de	—
GA 962543	26.2 de	27.5 h-j	19.2 de	24.3 ef
GA 981521	—	27.1 h-j	19.6 c-e	—
Georgia-01R	27.1 de	23.8 ij	19.6 c-e	23.5 ef
GA 982508	—	22.1 j	20.4 c-e	—
GA 971503	32.9 cd	—	—	—
GA 962539	32.1 cd	—	—	—
GA 971504	30.4 c-e	—	—	—

^a Means within the same column followed by the same letter do not differ significantly at k -ratio = 100 (ca. $P \leq 0.05$).

Table 3

Average of late-season disease incidence (predominately CBR and TSWV) among 30 peanut genotypes at the Southeast Georgia Branch Station near Midville, GA, 1999–2001

Peanut genotype	Late-season disease incidence ^a			3-yr mean (99–01)
	1999 (%)	2000 (%)	2001 (%)	
NC 8C	—	89.2 a	72.1 a	—
NC 3033	74.2 a	84.2 ab	66.7 ab	75.0 a
Perry	—	79.6 a-c	68.3 ab	—
GA 981510	—	86.2 a	57.1 a-e	—
GA 981509	—	85.8 a	53.8 a-f	—
Florida MDR 98	47.1 b-f	65.0 d-f	65.8 a-c	59.3 bc
NC 12C	57.5 bc	66.7 d-f	59.6 a-d	61.2 b
GA 962533	50.8 b-e	72.5 c-e	52.5 a-f	58.6 bc
GA 942509	47.5 b-f	63.8 d-g	57.5 a-e	56.2 bc
GA 981516	—	80.0 a-c	41.2 c-f	—
Georgia Green	57.5 bc	72.5 c-e	47.1 b-f	59.0 bc
C-99R	43.8 c-f	60.8 f-h	55.8 a-f	53.5 b-d
Georgia Hi-O/L	53.3 b-d	52.5 g-i	63.3 a-d	56.4 bc
GA 981517	—	63.8 d-g	45.8 b-f	—
Georgia Browne	—	73.3 b-d	34.2 ef	—
Southern Runner	51.7 b-d	62.1 d-h	44.6 b-f	52.8 b-d
GA 942510	44.6 b-f	57.5 f-i	47.9 a-f	50.0 c-e
GA 981520	—	64.2 d-f	40.4 d-f	—
Carver	—	56.2 f-i	44.6 b-f	—
GA 981521	—	61.7 e-h	39.2 d-f	—
GA 942516	34.2 fg	52.1 hi	46.2 b-f	44.2 d-f
GA 981511	—	60.4 f-h	32.9 ef	—
GA 962569	57.9 b	47.9 ij	43.8 b-f	49.9 c-e
GA 962543	41.2 d-f	52.5 g-i	33.8 ef	42.5 c-g
GA 982508	—	46.2 ij	39.2 d-f	—
GA 962540	24.6 g	48.8 ij	31.2 f	34.9 g
Georgia-01R	37.1 c-g	38.8 j	32.9 ef	36.2 fg
GA 971504	52.9 b-d	—	—	—
GA 971503	41.7 d-f	—	—	—
GA 962539	37.5 c-g	—	—	—

^a Means within the same column followed by the same letter do not differ significantly at k -ratio = 100 (ca. $P \leq 0.05$).

Table 4

Average CBR incidence after digging among 30 peanut genotypes at the Southeast Georgia Branch Station near Midville, GA, 1999–2001

Peanut genotype ^a	CBR incidence ^a			3-yr mean (99–01)
	1999 (%)	2000 (%)	2001 (%)	
C-99R	57.0 ab	56.2 a	44.2 ab	52.5 a
Southern Runner	58.8 a	50.4 ab	44.6 ab	51.2 a
GA 942509	52.0 a–d	39.6 b–d	50.0 a	47.2 ab
Florida MDR 98	54.5 a–c	39.2 b–c	48.3 a	47.4 ab
GA 942510	54.5 a–c	36.2 b–f	38.8 a–c	43.2 a–c
GA 981509	—	43.3 a–c	26.7 a–c	—
NC 8C	—	32.5 c–g	37.5 a–c	—
Georgia-01R	53.2 a–c	32.9 c–g	37.1 a–c	41.1 bc
NC 3033	48.2 a–e	24.2 f–h	45.0 ab	39.2 bc
GA 942516	35.8 c–g	28.8 c–h	37.5 a–c	34.0 cd
Perry	—	24.6 e–h	40.4 a–c	—
GA 981510	—	32.5 c–g	31.2 a–c	—
Georgia Green	53.8 a–c	30.0 c–h	29.2 a–c	37.6 bc
Carver	—	25.8 d–h	32.9 a–c	—
Georgia Hi-O/L	41.8 b–f	22.9 f–h	35.8 a–c	33.5 cd
GA 962543	53.8 a–c	31.7 c–g	26.2 a–c	37.2 c
GA 981517	—	20.4 gh	32.1 a–c	—
Georgia Browne	—	29.2 c–h	23.3 a–c	—
GA 981521	—	21.7 f–h	27.9 a–c	—
GA 981520	—	22.9 f–h	26.7 a–c	—
GA 981516	—	25.4 d–h	21.7 a–c	—
GA 962540	28.2 fg	26.2 d–h	20.8 a–c	25.1 de
GA 962533	31.8 fg	20.8 gh	24.6 a–c	25.7 de
NC 12C	23.0 g	16.7 h	25.4 a–c	21.7 e
GA 982508	—	15.8 h	24.2 a–c	—
GA 962569	29.5 fg	18.8 gh	17.1 bc	21.8 e
GA 981511	—	18.3 gh	13.3 c	—
GA 971504	56.2 a–c	—	—	—
GA 971503	40.8 c–f	—	—	—
GA 962539	36.8 d–g	—	—	—

^a Means within the same column followed by the same letter do not differ significantly at k -ratio = 100 (ca. $P \leq 0.05$).

Table 5

Average pod yields under heavy CBR disease pressure among 30 peanut genotypes at the Southeast Georgia Branch Station near Midville, GA, 1999–2001

Peanut genotype	Pod yield ^a			3-yr mean (99–01)
	1999 (kg/ha)	2000 (kg/ha)	2001 (kg/ha)	
Georgia-01R	2408 b–f	2904 a	2705 a	2672 a
Carver	—	2728 ab	2387 a	—
GA 982508	—	2843 a	2026 b–f	—
NC 12C	2577 a–d	2714 a–c	2157 a–d	2482 ab
GA 981511	—	2648 a–d	1908 b–f	—
GA 962569	2596 a–d	2592 a–e	1930 b–f	2373 a–c
GA 962533	2772 ab	2368 a–f	2022 b–f	2387 a–c
GA 942516	3077 a	2251 b–g	2065 b–e	2464 ab
GA 981517	—	2055 e–k	2205 a–c	—
GA 962543	2350 b–g	2188 c–i	2066 b–e	2201 b–d
GA 981516	—	2121 d–j	2039 b–f	—
Georgia Browne	—	1582 k–m	2326 a	—
Georgia Green	2503 a–e	1883 f–i	1929 b–f	2105 c–e
Georgia Hi-O/L	2689 a–c	2241 b–h	1534 e–h	2154 b–d
GA 981521	—	1722 g–m	1906 b–f	—
GA 981520	—	1846 f–i	1736 c–g	—
GA 962540	2429 b–f	1649 j–m	1890 b–f	1989 de
Southern Runner	2224 b–h	1603 j–m	1872 b–f	1899 d–f
Perry	—	1735 g–m	1619 d–h	—
C-99R	2104 c–h	1706 h–m	1468 f–h	1760 e–g
GA 981510	—	1401 l–n	1695 c–h	—
NC 3033	2002 d–h	1445 l–n	1646 c–h	1698 fg
GA 942510	1787 f–h	1522 k–m	1544 e–h	1618 fg
GA 942509	1845 f–h	1692 i–m	1287 gh	1607 fg
GA 981509	—	1210 mn	1656 c–h	—
Florida MDR 98	1742 gh	1563 k–m	1129 h	1478 g
NC 8C	—	1008 n	1575 e–h	—
GA 971503	1910 e–h	—	—	—
GA 962539	2146 b–h	—	—	—
GA 971504	1652 h	—	—	—

^a Means within the same column followed by the same letter do not differ significantly at k -ratio = 100 (ca. $P \leq 0.05$).

The ANOVA Procedure

Dependent Variable: PercentDiseaseIncidence

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	21	7669.856905	365.231281	13.15	<.0001
Error	20	555.341429	27.767071		
Corrected Total	41	8225.198333			

R-Square	Coeff Var	Root MSE	PercentDiseaseIncidence Mean
0.932483	19.38484	5.269447	27.18333

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Rep	20	2712.483333	135.624167	4.88	0.0004
Entry	1	4957.373571	4957.373571	178.53	<.0001

The ANOVA Procedure

Duncan's Multiple Range Test for PercentDiseaseIncidence

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	20
Error Mean Square	27.76707

Number of Means	2
Critical Range	3.392

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	Entry
A	38.048	21	03 / = Agatech 201
B	16.319	21	01 / = Georgia-02C

02/21/2002

S.E. 2-YR AVERAGE DISEASE INCIDENCE (%TD)
2000-01

0001SETD *

REPS	GA-02C O1	AT201 O3
1-2000 Test 02	17.5	47.9
2- " " 03	22.9	57.9
3- " " 04	16.7	48.3
4- " " 05	12.5	28.8
5- " " 06	15.4	28.3
6- " " 07	13.8	42.9
7- " " 08	10.8	33.3
8- " " 11	22.5	48.8
9- " " 12	27.5	55
10- " " 20	19.6	46.7
11-2001 Test 02	15.4	31.2
12- " " 03	15.4	30.4
13- " " 04	15	37.1
14- " " 05	5.4	21.7
15- " " 06	10.4	22.1
16- " " 07	17.9	42.1
17- " " 08	16.7	28.3
18- " " 11	16.2	38.8
19- " " 12	26.7	55
20-2001 Ala. Irrig.	14.4	35
21- " " Dryland	10	19.4

* Each value represents the mean of six 20 x 6 ft plots (120 ft²). TSWV disease percentages were determined just before each plot was dug and harvested. A disease hit consisted of one or more infected plants in a 12-inch section of row.

The ANOVA Procedure

Dependent Variable: PercentLinoleicAcid

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	12.15000000	12.15000000	209.79	<.0001
Error	58	3.35907333	0.05791506		
Corrected Total	59	15.50907333			

R-Square	Coeff Var	Root MSE	PercentLinoleicAcid Mean
0.783412	7.699333	0.240655	3.125667

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Group	1	12.15000000	12.15000000	209.79	<.0001

The ANOVA Procedure

t Tests (LSD) for PercentLinoleicAcid

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	58
Error Mean Square	0.057915
Critical Value of t	2.00172
Least Significant Difference	0.1244

Means with the same letter are not significantly different.

t Grouping	Mean	N	Group
A	3.57567	30	2 / = AgraTech 201
B	2.67567	30	1 / = Georgia-02C

10/29/2002

%Linoleic
0001PLFA

<u>1</u>	<u>2</u>	
2.6	3.84	
2.54	4.19	2000
3	3.42	Test 03
2.57	3.76	
2.64	3.89	
2.64	3.55	
2.63	3.38	
2.79	3.6	2000
2.41	3.66	Test 11
2.94	3.16	
2.83	3.49	
2.42	3.52	
2.88	2.69	
2.58	3.34	2000
2.92	3.73	Test 20
2.75	3.28	
2.76	3.75	
2.38	3.4	
2.75	3.65	
2.58	3.54	2001
2.58	3.16	Test 03
2.8	3.98	
2.49	3.64	
2.6	3.95	
2.83	3.62	
2.8	3.56	2001
2.69	3.42	Test 11
2.67	3.85	
2.34	3.46	
2.86	3.79	

The ANOVA Procedure

Dependent Variable: PercentTSMK

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	21	220.8592857	10.5171088	2.79	0.0128
Error	20	75.4847619	3.7742381		
Corrected Total	41	296.3440476			

R-Square	Coeff Var	Root MSE	PercentTSMK Mean
0.745280	2.600308	1.942740	74.71190

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Rep	20	172.8590476	8.6429524	2.29	0.0356
Entry	1	48.0002381	48.0002381	12.72	0.0019

The ANOVA Procedure

Duncan's Multiple Range Test for PercentTSMK

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	20
Error Mean Square	3.774238

Number of Means	2
Critical Range	1.251

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	Entry
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A	75.7810	21	01
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B	73.6429	21	03
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= Georgia-02 C
= Agatech 201

02/21/2002

S.E. 2-YR AVERAGE GRADE (%TSMK)
2000-01

0001SEGR *

REPS	GA-02c O1	AT 201 O3
1	76.9	73.6
2	77.4	77
3	76.9	72.8
4	74	72
5	71.5	70.5
6	73	71.5
7	75	73
8	77.4	77.1
9	77	66
10	78.2	77.6
11	77.6	73.3
12	76.1	74.5
13	78.2	73.6
14	72.5	76
15	75	74.5
16	76.5	75.5
17	74	73
18	79.2	76.3
19	78	75.7
20	73	73
21	74	70

* Same as for TSWV Disease incidence, except % TSMK grade was the mean of two - 1000g pool samples, shelled, graded, and sized on a 16/64 x 3/4 inch ~~shelled~~ screen.

The ANOVA Procedure

Dependent Variable: Percent0_L_Ratio

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	30	1163.825000	38.794167	6.52	<.0001
Error	29	172.524833	5.949132		
Corrected Total	59	1336.349833			

R-Square	Coeff Var	Root MSE	Percent0_L_Ratio Mean
0.870898	8.609039	2.439084	28.33167

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Rep	29	129.644833	4.470511	0.75	0.7768
Entry	1	1034.180167	1034.180167	173.84	<.0001

The ANOVA Procedure

Duncan's Multiple Range Test for PercentO_L_Ratio

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	29
Error Mean Square	5.949132

Number of Means	2
Critical Range	1.288

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	Entry
A	32.4833	30	01 ✓ = Georgia-02c
B	24.1800	30	02 ✓ = Agrotech 201

03/01/2002

0001OLFA

O/L Ratio

<u>Rep</u>	<u>O1</u>	<u>O2</u>	
1	31.5	22.4	
2	33.9	20	2000
3	29.1	25.3	Test 03
4	32.1	22.9	
5	32.7	22.3	
6	32.7	24.5	
7	32.7	23.9	
8	31.2	24	2000
9	34.9	23.2	Test 11
10	28.9	27.7	
11	30.3	24.6	
12	35.8	22.9	
13	30.5	32.3	
14	33.2	25.7	2000
15	29.3	22.8	Test 20
16	31.3	26.4	
17	30.4	22.9	
18	35.6	24.3	
19	32.2	20.2	
20	34.5	24.8	2001
21	34.4	28	Test 03
22	31.6	22	
23	35.7	24.3	
24	33.7	22.2	
25	31	24.3	
26	31.4	24.7	2001
27	32.7	25.7	Test 11
28	32.7	22.6	
29	37.8	25.3	
30	30.7	23.2	

The ANOVA Procedure

Dependent Variable: PercentJumbo

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	2767.079091	251.552645	10.47	0.0004
Error	10	240.373636	24.037364		
Corrected Total	21	3007.452727			

R-Square	Coeff Var	Root MSE	PercentJumbo Mean
0.920074	14.00070	4.902791	35.01818

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Rep	10	1112.322727	111.232273	4.63	0.0118
Entry	1	1654.756364	1654.756364	68.84	<.0001

The ANOVA Procedure

Duncan's Multiple Range Test for PercentJumbo

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	10
Error Mean Square	24.03736

Number of Means	2
Critical Range	4.658

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	Entry
A	43.691	11	01
B	26.345	11	02

✓ = Georgia-02C
✓ = AgriTech 201

02/26/2002

2-YR AVERAGE SMK DISTRIBUTION
JUMBO (%) *

0001JUMB

REPS	GA-02C	AT201
	O1	O2
1-2000 Test 03	51.2	43.3
2-2000 Test 04	33.2	11.2
3-2000 Test 11	50.1	42.2
4-2000 Test 12	42.7	12.1
5-2000 Test 20	45.9	23.9
6-2001 Test 03	37.5	24
7-2001 Test 04	41.5	22.4
8-2001 Test 11	43.1	29.7
9-2001 Test 12	41.2	28.7
10-2000 Test 02	50.9	29.5
11-2001 Test 02	43.3	22.8

* Each value represents the mean of two - 1000 g pool samples
shelled, graded, and sized on a 2 1/64 x 3/4 inch slotted screen,
according to federal state inspection service official procedure.

The ANOVA Procedure

Dependent Variable: PercentSMK

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	1156.790000	105.162727	6.27	0.0036
Error	10	167.653636	16.765364		
Corrected Total	21	1324.443636			

R-Square	Coeff Var	Root MSE	PercentSMK Mean
0.873416	5.988576	4.094553	68.37273

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Rep	10	935.333636	93.533636	5.58	0.0060
Entry	1	221.4563636	221.4563636	13.21	0.0046

The ANOVA Procedure

Duncan's Multiple Range Test for PercentSMK

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	10
Error Mean Square	16.76536

Number of Means	2
Critical Range	3.890

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	Entry
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A	71.545	11	01
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B	65.200	11	02
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= Georgia-02C
= Agratech 201

28

02/26/2002

2-YR AVERAGE SMK DISTRIBUTION
SMK (%) ~~2~~

0001SMK

REPS	Q1-020	Q2-01
1	75.4	72.9
2	64.5	48.4
3	73.1	73.3
4	62.5	45.2
5	73.8	68.7
6	72.4	71.4
7	72	62.9
8	73.4	69.4
9	72.2	65
10	75.7	70.1
11	72	69.9

* Same as for % Insects, except sigal over a 16/64 X 3/4 inch
slotted screen.

The ANOVA Procedure

Dependent Variable: YieldLbs_Acre

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	21	51738017.83	2463715.13	8.89	<.0001
Error	20	5539959.14	276997.96		
Corrected Total	41	57277976.98			

R-Square	Coeff Var	Root MSE	YieldLbs_Acre Mean
0.903279	12.53699	526.3060	4198.024

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Rep	20	41994864.48	2099743.22	7.58	<.0001
Entry	1	9743153.36	9743153.36	35.17	<.0001

The ANOVA Procedure

Duncan's Multiple Range Test for YieldLbs_Acre

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	20
Error Mean Square	276998

Number of Means	2
Critical Range	338.8

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	Entry
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A	4679.7	21	01
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B	3716.4	21	03
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✓ = Georgia-02C
✓ = Agratech 201

02/21/2002

S.E. 2-YR AVERAGE POD YIELD (LB/A)
2000-01

REPS	0001SEYD *	
	GA-02C O1	AT 201 O3
1	5230	3724
2	5175	3463
3	3370	2267
4	5066	4443
5	4753	4753
6	5647	4067
7	4326	3586
8	4926	3932
9	3019	1346
10	4742	3146
11	5783	4081
12	5294	3795
13	4317	3046
14	5682	6000
15	4599	4648
16	4760	4326
17	2181	1569
18	5055	2750
19	3775	2493
20	5890	5935
21	4683	4674

* Same as for TSWV Disease incidence, except yields were determined after pods were dried with forced warm air to 6% moisture and then were hand-cleaned over a screen table before weighing for yield.

The ANOVA Procedure

Dependent Variable: SeedsPerPound

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	21	266164.7857	12674.5136	5.16	0.0003
Error	20	49109.3333	2455.4667		
Corrected Total	41	315274.1190			

R-Square	Coeff Var	Root MSE	SeedsPerPound Mean
0.844233	6.868913	49.55267	721.4048

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Rep	20	265435.6190	13271.7810	5.40	0.0002
Entry	1	729.1667	729.1667	0.30	0.5918

The ANOVA Procedure

Duncan's Multiple Range Test for SeedsPerPound

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	20
Error Mean Square	2455.467

Number of Means	2
Critical Range	31.90

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	Entry
A	725.57	21	01
A			
A	717.24	21	03

✓ = Georgia-02C
✓ = Agrotach 201

02/21/2002

S.E. 2-YR AVERAGE SEED (NO./LB)
2000-01

REPS	0001SESD *	
	GA-02C	AT201
1	695	706
2	673	643
3	742	822
4	760	718
5	782	732
6	707	630
7	690	679
8	722	611
9	665	785
10	705	715
11	705	705
12	777	681
13	710	689
14	788	722
15	680	729
16	622	593
17	667	655
18	684	673
19	687	702
20	848	768
21	928	1104

* Same as for TSWV Disease incidence, except seed amt per lb was determined from the weight of two - 100 stalk samples.

3

The ANOVA Procedure

Dependent Variable: DollarValue_Acre

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	21	5595506.714	266452.701	7.37	<.0001
Error	20	723400.905	36170.045		
Corrected Total	41	6318907.619			

R-Square	Coeff Var	Root MSE	DollarValue_Acre Mean
0.885518	14.07481	190.1842	1351.238

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Rep	20	4332946.619	216647.331	5.99	<.0001
Entry	1	1262560.095	1262560.095	34.91	<.0001

The ANOVA Procedure

Duncan's Multiple Range Test for DollarValue_Acre

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	20
Error Mean Square	36170.05

Number of Means	2
Critical Range	122.4

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	Entry
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A	1524.62	21
---	---------	----

01

= Georgia-02e

B	1177.86	21
---	---------	----

03

= Agratech 201

02/21/2002

S.E. 2-YR AVERAGE DDOLLAR VALUE (\$/A)
2000-01

0001SEDV *

REPS	GA-02C O1	AT 201 O3
1	1737	1194
2	1719	1150
3	1108	697
4	1624	1393
5	1483	1449
6	1794	1275
7	1406	1134
8	1636	1306
9	980	310
10	1592	1049
11	1935	1270
12	1734	1220
13	1442	953
14	1772	1966
15	1480	1483
16	1556	1417
17	696	493
18	1710	886
19	1261	808
20	1858	1865
21	1494	1417

* Same as TSWV Disease incidence, except dollar values were calculated from average yield and grade data based upon USDA-ERS 1997 percent loan schedules for each crop year.

The ANOVA Procedure

Dependent Variable: PercentOleicAcid

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	1.2470417	1.2470417	0.32	0.5721
Error	58	224.0720167	3.8633106		
Corrected Total	59	225.3190583			

R-Square	Coeff Var	Root MSE	PercentOleicAcid Mean
0.005535	2.273889	1.965531	86.43917

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Group	1	1.24704167	1.24704167	0.32	0.5721

The ANOVA Procedure

t Tests (LSD) for PercentOleicAcid

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	58
Error Mean Square	3.863311
Critical Value of t	2.00172
Least Significant Difference	1.0159

Means with the same letter are not significantly different.

t Grouping	Mean	N	Group
A	86.5833	30	1 / = Georgia-02c
A			
A	86.2950	30	2 / = AgriTech 201

10/29/2002

%Oleic
0001POFA

1	2	
81.81	85.9	
86.06	83.65	2000
87.34	86.63	Test 03
82.48	86	
86.23	86.69	
86.42	87.13	
86.05	80.73	
87.04	86.49	2000
84.04	84.77	Test 11
84.96	87.43	
85.79	85.68	
86.75	80.6	
87.8	86.97	
85.76	85.81	2000
85.49	84.9	Test 20
86.19	86.63	
83.79	85.73	
84.67	82.76	
88.59	88	
88.99	87.95	2001
88.72	88.62	Test 03
88.35	87.38	
88.99	88.43	
87.63	87.63	
87.83	87.72	
88.07	87.86	2001
87.93	88.04	Test 11
87.42	87.2	
88.4	87.55	
87.91	87.97	

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

1. NAME OF APPLICANT(S) University of Georgia Research Foundation, Inc.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER GA 982508	3. VARIETY NAME Georgia-02C
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) Boyd Graduate Studies Research Center Athens, GA 30602-7411	5. TELEPHONE (include area code) (706) 542-5944	6. FAX (include area code) (706) 542-3837
7. PVPO NUMBER		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain

<input checked="" type="checkbox"/>	YES	<input type="checkbox"/>	NO
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9. Is the applicant (individual or company) a U.S. National or a U.S. based company? If no, give name of country

<input checked="" type="checkbox"/>	YES	<input type="checkbox"/>	NO
-------------------------------------	-----	--------------------------	----

10. Is the applicant the original owner? ☐ YES ☒ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

<input checked="" type="checkbox"/>	YES	<input type="checkbox"/>	NO	If no, give name of country
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b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	If no, give name of country
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11. Additional explanation on ownership (If needed, use the reverse for extra space):

See attached Exhibit E Statement.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 6 minutes per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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EXHIBIT - E

UNIVERSITY OF GEORGIA RESEARCH FOUNDATION, INC. STATEMENT OF APPLICANT'S OWNERSHIP

The variety for which plant variety protection is hereby sought was developed by William D. Branch, an employee at the University of Georgia Agricultural Experiment Station. The Georgia Agricultural Experiment Station is a part of The University of Georgia. The University of Georgia is one of the universities in the University System of Georgia. The Board of Regents of the University System of Georgia ("Board of Regents") is a body that was created by the Constitution of the State of Georgia and is charged with the responsibility of operating the universities in the University System of Georgia. The University of Georgia Research Foundation, Inc. is a Georgia nonprofit corporation which was incorporated to, among other things, own and exploit intellectual property developed or created at The University of Georgia. One June 9, 1982, the Board of Regents approved a Patent Policy regarding inventions and discoveries by persons employed at the University of Georgia. As an employee at the Georgia Agricultural Experiment Station, William D. Branch is subject to said Patent Policy. Rights in novel plant varieties developed at the University of Georgia, including Georgia-02C, are covered by said Patent Policy. By agreement, the Board of Regents assigned to the University of Georgia Research Foundation, Inc. all rights in intellectual property covered by said Patent Policy. This agreement applies to then existing intellectual property and to intellectual property which was developed thereafter.